

REMARKS

Reconsideration of the present application in view of the foregoing amendments and the following remarks is requested respectfully.

I. STATUS OF CLAIMS

Claims 1, 3-13, and 15-18 are presented. Claims 1, 10 and 11 have been amended, claim 2 has been cancelled, and no claims have been added. A clean set of the claims as amended is attached hereto.

II. THE § 112 REJECTION

Claims 10-11, and 15-17 depending therefrom, stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants note that claims 10 and 11 have been amended to delete the word "essentially" from the Markush group construction. Applicants submit respectfully that the § 112 rejection of claims 10-11 and 15-17 has been addressed in full. Accordingly, applicants request respectfully that the rejection under § 112 be withdrawn.

III. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER

A. Summary Of The Claimed Invention

The present invention as claimed relates to a process for modifying the water and oil

holding capacities of particulate dietary fiber material by dispersing said particulate material in a liquid media, applying an abrupt pressure change by mechanical means to the particulate material in the liquid media, and recovering the modified material. Certain embodiments of the claimed process effect a reduction in the water holding capacity and oil retention properties of dietary fibers (see, e.g., claim 10), while other embodiments result in an increase in the water holding capacity and oil retention properties of dietary fibers (see, e.g., claim 11). Still other embodiments of the present invention render the modified dietary fibers resistant to changes in their water absorption properties (see, e.g., claim 12), and provide for an increase in the total dietary fiber content of the dietary fiber material so modified (see, e.g., claim 13).

B. The Presently Claimed Invention is Patentable Over the '342 patent

Claims 1, 3-4, 6, 7, 9, 15 and 18 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Redding Jr. (U.S. Patent No. 5,455,342) ("the '342 patent"). The § 102(e) rejection is traversed respectfully.

Applicants note that claim 2 was not identified by the Examiner as being rejected under § 102(e). It is thus recognized that the process of modifying the particular properties identified in claim 2 is not anticipated by the '342 patent. Claim 1, as amended, includes all of the elements of claim 2 (i.e., identifying the modified properties as the water and oil holding capacities of dietary fiber). As a consequence, the '342 patent can no longer serve as the basis for a the § 102(e) rejection. The balance of the claims rejected under § 102(e) (claims 3-4, 6, 7, 9, 15 and 18) depend, directly or indirectly from claim 1. In view of the amendment to claim 1, all of the

claims which depend from claim 1 similarly avoid the § 102(e) rejection. Accordingly, having rendered the § 102(e) rejection no longer appropriate, applicants request respectfully that the rejection of claims 1, 3-4, 6, 7, 9, 15 and 18 under § 102(e) be withdrawn.

C. The Presently Claimed Invention is Patentable Over the '342 Patent in View of the Secondary References

Claims 2, 5, 8-10, 12-13 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the '342 patent in view of The Polymer Handbook, and claims 11 and 17 stand rejected over the '342 patent in view of Fennema [FOOD CHEMISTRY]. Both of these rejections are traversed respectfully.

The '342 patent, the primary reference, is directed to the modification of a particular set of properties of polymers, including natural polymers. The specific polymer properties and the direction of modification identified by the '342 patent are: (1) higher melting point; (2) decreased solubility of the polymers in solution; (3) increased viscosity; (4) easier tableting (harder tablets at lower than conventional compression forces); and (5) decreased turbidity in solution. No other properties are specified and the direction of modification for all of the identified properties is unidirectional.

By contrast, the presently claimed method is directed to a set of properties that are completely different from the properties modified by the methods of the '342 patent. Further, the materials which are processed in accordance with the presently claimed method are defined as "particulate dietary fiber" as opposed to "starches" and "other polymers" as characterized in the '342 patent. Moreover, the '342 patent is lacking in any disclosure or suggestion that certain

polymers, in the form of dietary fiber, be processed in accordance with its disclosed methods to result in the modification of water-holding, or oil-holding properties, or impart a temperature-resistance to such properties, or increase dietary fiber content.

To the extent the "particulate dietary fiber" of the present invention is a material that is different from the "starches" and "other polymers" of the '342 patent, the method of the present invention is directed to the modification of different properties with respect to different materials to accomplish a result not in any way contemplated by the '342 patent. To the extent any particular polymer identified in the '342 patent can be considered suitable as a dietary fiber, the method of the present invention is still directed to the modification of different properties to accomplish a result not in any way contemplated by the '342 patent. There is nothing in the '342 patent which would suggest an awareness of the problems associated with dietary fibers or that a set of properties not mentioned in the '342 patent can be modified by the methods of the '342 patent, let alone the direction in which they may be so modified. "Obviousness cannot be predicated on what is unknown." *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993) (quoting *In re Spormann*, 363 F.2d 444, 448 (C.C.P.A. 1966)). It is submitted respectfully that the modification of the properties of dietary fibers identified in the claims of the present invention is not obvious in view of the polymer modification methods of the '342 patent.

This deficiency in the '342 patent cannot be overcome by The Polymer Handbook or the Fennema reference. As set forth in the most recent Office Action, The Polymer Handbook is relied upon solely as the source for the disclosure of the use of cellulose, and the Fennema reference is relied upon solely as the source for the disclosure of the use of oat bran. There is no

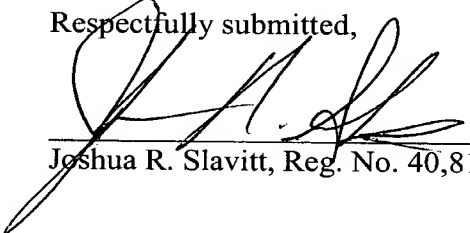
teaching or suggestion in either of these secondary references that the processing of dietary fiber materials could, would, or should result in a modification of the properties recited in the claims as presently amended or the direction of such modification. Absent such a disclosure or suggestion, the Examiner has not made out a prima facie obviousness rejection. Accordingly, it is submitted respectfully that the rejection of claims 2, 5, 8-10, 12-13 and 16 based on § 103(a) should be withdrawn.

III. CONCLUSION

In view of the foregoing amendments and remarks, favorable reconsideration and prompt notice of allowance of all of the pending claims are requested respectfully.

Should the Examiner continue to have any doubts as to the allowability of any of the claims, he is requested respectfully to telephone the applicants' undersigned attorney to discuss the same before issuing further action, as it is believed such discussion would help to expedite the prosecution of this application.

Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. A process for modifying the [properties] water and oil holding capacities of a particulate dietary fiber material consisting essentially of indigestible fiber derived from natural grains and wood products, comprising dispersing said particulate material in a liquid media, applying an abrupt pressure change by mechanical means to said particulate material in said liquid media, and recovering said modified fiber material.
10. A process to reduce the water holding capacity and oil retention properties of dietary fibers consisting essentially of indigestible fiber selected from the group consisting [essentially] of dietary cellulose and wheat fibers, comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change to said suspension by means of a piston driven by a compressive air force of about 60 to about 90 psi for about 0.1 to 0.2 sec. and recovering a modified fiber having said reduced properties.
11. A process to increase the water holding capacity and oil retention properties of dietary fibers consisting essentially of indigestible fiber selected from the group consisting [essentially] of dietary soy, wheat bran, oat and oat hull, comprising preparing a suspension of said fibers in a liquid media, applying an abrupt pressure change to said suspension by means of a piston driven by a compressive air force of about 60 to about 90 psi for about 0.1 to 0.2 sec. and recovering a modified fiber having said increased properties.